<u>Amendments to the Claims:</u>

1.   (currently amended) A method of selecting operational parameters of a communication network, ~~characterised by~~ <u>the method comprising the steps of</u>;

   searching an operational parameter space using a multiple objective simulated annealing (MOSA) process wherein <u>the searching step includes</u>;

      ~~the~~ <u>defining</u> objectives ~~are~~ based upon performance
      indicators of the communication network;

      ~~the~~ <u>generating by the</u> MOSA process ~~generates~~ an archive
      of estimated values of a Pareto front; and

      ~~the~~ <u>employing by the</u> MOSA process ~~employs~~ a dominance-
      based energy function <u>to select the operational</u>
      <u>parameters; and</u>

   <u>applying the operational parameters in the operation of the communication network</u>.

2.   (original) A method according to claim 1, wherein the dominance-based energy function, E(x), is defined substantially as

      $E(x) = \mu(\tilde{F}_x)$,

where μ is a measure defined on $\tilde{F}_x$, and $\tilde{F}_x$ is defined substantially as

      $\tilde{F}_x = \{y \in \tilde{F} \mid y \prec x\}$,

such that $\tilde{F}_x$ is the set of elements of $\tilde{F}$ that dominate solution x, where $\tilde{F}$ is the union of the current set of mutually non-dominating solutions found, with the current solution x and the proposed perturbed solution x'.

3.   (currently amended) A method according to claim ~~1~~ 2, wherein the difference in the dominance-based energy function between current solution x and proposed perturbed solution x' is evaluated substantially as

$$\delta E(x, x') = \frac{1}{|\tilde{F}|}\left(\left|\tilde{F}_x\right| - \left|\tilde{F}_{x'}\right|\right),$$

all terms as defined herein.

4.   (previously presented) A method according to claim 1, wherein additional values of the estimated Pareto front are obtained by randomly sampling an attainment surface of the archive of estimated values of the Pareto front.

5.   (currently amended) A method according to claim 1, wherein the MOSA process ~~may propose a perturbation to~~ can perturb the present solution for x, x' that is scaled using one of two scaling schemes;
   i.   transversal scaling
   ii. location scaling

6.   (previously presented) A method according to claim 1, wherein objectives may be based upon performance indicators of the communication network from any or all of the following categories;
   i.   Capacity;
   ii. Coverage; and
   iii. Quality of service.

7.   (currently amended) A method according to claim 1, wherein notional costs ~~values~~ are applied to the objectives and/or the operational parameters according to a given scenario.

8.　(original) A method according to claim 7, wherein the solution with the lowest cost within the archive of estimated values of the Pareto front is chosen for a given scenario.

9.　(canceled).

10.　(canceled).